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CANTOR COLBURN, LLP
20 Church Street
22nd Floor
Hartford, CT 06103

EXAMINER	
HUNNINGS, TRAVIS R	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/562,596
Filing Date: December 22, 2005
Appellant(s): LORENZ ET AL.

Howard I. Levy
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 4 December 2008 appealing from the Office action mailed 21 May 2008.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

US pat. 5,570,903	**Meister**	**11-1996**
US pat. 7,161,460	**Federspiel**	**01-2007**
US pub. 2004/0163939	**Bieck**	**08-2004**

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-6, 9, 10, 13-18, 21 and 22 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Meister et al. (Meister; US Patent 5,570,903) for the record.

Regarding claim 1, Meister discloses *Occupant And Infant Seat Detection In A Vehicle Supplemental Restraint System* that has the following claimed limitations:

The claimed occupancy sensor with at least two pressure actuatable switching elements associated to a surface of a seat with a certain distance between them in such a way that a first switching element is associated to a first area of the seat and a second switch element is associated to a second area of the seat is met by the sensors being deployed in a vehicle seat as shown in figures 5 and 6;

Meister does not specifically disclose the claimed first and second switching elements are connected together in such a way as to implement a logical AND gate operation. However, Meister does disclose an analyzer circuit that is set up to determine the presence of a sitting person based on any user desired combination of inputs from the sensors (column 5, lines 6-32). It would have been obvious to one of ordinary skill in the art to use a logical AND gate operation between two sets of sensors in order to provide a conclusive indication of someone sitting, since the combination of inputs in Meister pertains to a logical combining, or "AND" logical operation, of the sensor inputs. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Meister to utilize a logical AND gate operation.

Regarding claim 2, Meister does not specifically disclose the claimed first and second switching elements are connected together in series. Meister does disclose an analyzer circuit that is set up to determine the presence of a sitting person based on any user desired combination of inputs from the sensors. It would have been obvious to one of ordinary skill in the art to connect two sets of sensors in series in order to provide a more conclusive indication of someone sitting. Therefore it would have been obvious to

one of ordinary skill in the art at the time of the invention to modify the device disclosed by Meister to connect the two sets of sensors in series.

Regarding claim 3, the claimed first and/or second switching elements comprising a pressure sensor is met by the sensors being tripped because of the pressure that is applied to them when a person sits down on the seat (column 5, lines 6-32).

Regarding claim 4, Meister does not specifically disclose the claimed first and/or second switching elements comprises a plurality of individual switching cells connected together in such a way as to implement a logical OR gate operation. Meister does disclose an analyzer circuit that is set up to determine the presence of a sitting person based on any user desired combination of inputs from the sensors (column 5, lines 6-32). It would have been obvious to one of ordinary skill in the art to use a logical OR gate operation between two sets of sensors in order to provide a more conclusive indication of someone sitting. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Meister to utilize a logical OR gate operation.

Regarding claim 5, Meister does not specifically disclose the claimed individual switching cells of a switch element being connected in parallel. Meister does disclose an analyzer circuit that is set up to determine the presence of a sitting person based on any user desired combination of inputs from the sensors (column 5, lines 6-32). It would have been obvious to one of ordinary skill in the art to connect the sensors in parallel in order to provide a more conclusive indication of someone sitting. Therefore it would

have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Meister to connect the sensors in parallel.

Regarding claim 6, the claim is interpreted and rejected as claim 3 stated above.

Regarding claim 9, the claimed first and second switching elements are arranged at least approximately at equal distances from a set centerline running longitudinally with respect to the vehicle and at a certain distance from each other is met by the sensors being arranged as can be seen in figure 6.

Regarding claim 10, the claim is interpreted and rejected as claim 9 stated above.

Regarding claim 13, the claim is interpreted and rejected as claim 1 stated above.

Regarding claim 14, the claim is interpreted and rejected as claim 2 stated above.

Regarding claim 15, the claim is interpreted and rejected as claim 3 stated above.

Regarding claim 16, the claim is interpreted and rejected as claim 4 stated above.

Regarding claim 17, the claim is interpreted and rejected as claim 5 stated above.

Regarding claim 18, the claim is interpreted and rejected as claim 3 stated above.

Regarding claim 21, the claim is interpreted and rejected as claim 9 stated

above.

Regarding claim 22, the claim is interpreted and rejected as claim 9 stated above.

2. Claims 7, 11, 19 and 23 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Meister in view of Federspiel (US Patent 7,161,460) for the record.

Regarding claim 7, Meister does not specifically disclose the claimed sensor is a foil-type pressure sensor of a through-mode type. Federspiel discloses *Switching Element Provided With A Foil Construction* that teaches using a foil-type through mode pressure sensor (column 3, lines 39-51). Replacing the sensor of Meister with a known pressure sensor as taught by Federspiel would give the user a wider range of options to utilize the device. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Meister according to the teachings of Federspiel to use a foil-type through-mode pressure sensor.

Regarding claims 11, 19 and 23, the claims are interpreted and rejected as claim 7 stated above.

3. Claims 8, 12, 20 and 24 are again rejected under 35 U.S.C. 103(a) as being unpatentable over Meister in view of Bieck et al. (Bieck; US Patent Application Publication 2004/0163939) for the record.

Regarding claim 8, Meister does not specifically disclose the claimed sensor is a foil-type pressure sensor of a shunt-mode type. Bieck discloses *Foil-Type Switching*

Element With Improved Spacer Design that teaches using a foil-type shunt mode pressure sensor (paragraph 23). Replacing the sensor of Meister with a known pressure sensor as taught by Bieck would give the user a wider range of options to utilize the device. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the device disclosed by Meister according to the teachings of Bieck to use a foil-type shunt-mode pressure sensor.

Regarding claims 12, 20 and 24, the claims are interpreted and rejected as claim 7 stated above.

(10) Response to Argument

Argument 1: The teachings of Meister to receive the individual output signals separately in an analyzer circuit are in contrast to applicant's claimed configuration, in which the first switching element and second switching element are connected together in such a way as to implement a logical AND operation. Via such a connection, the first switching element and second switching element are hardwired together so that an output signal from the first and second switching element is only measurable if each one of the switching elements is triggered or activated.

The claims recite the following: "wherein said first switching element and said second switching element are connected together in such a way as to implement a logical AND operation." No where in the claim does it recite a physical connection of the switching elements, much less a hardwired connection of the switching elements.

Meister discloses several sensing signals being connected to an analyzer circuit. By connecting all of the individual sensor signals to the analyzer circuit, the signals are "connected together in such a way" as required by the claim.

Furthermore, looking at figure 1 of Meister, the figure clearly shows two switching elements (18 and 20) being connected in a physical, hardwired fashion, that is then connected to the control (32) for processing.

Argument 2: Meister neither discloses nor suggests that the analyzer circuit determines the occupancy class based on any user desired combination of output signals of the switching elements.

Meister discloses a number of "sensors are all connected to corresponding individual inputs of an analyzer circuit...analyzer circuit may comprise a microprocessor that is programmed or calibrated to identify and distinguish among seat occupancy situations." The microprocessor would be programmed to distinguish between different seating situations and one of ordinary skill in the art would have realized that any combination of the inputs that would be desired would be programmable into the microprocessor, including the programming of an AND operation between the signals.

Furthermore, even if it was not obvious that the programming/calibrating of the microprocessor would include a logical AND operation when looking at multiple sensors, Meister would still disclose the claimed invention. Looking at figure 1 of Meister, the figure clearly shows two switching elements (18 and 20) being connected in a physical,

hardwired fashion, that is then connected to the control (32) for processing.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Travis R Hunnings/

Conferees:

Benjamin C. Lee

/Benjamin C. Lee/
Supervisory Patent Examiner, Art Unit 2612

Daniel Wu

/Daniel Wu/
Supervisory Patent Examiner, Art Unit 2612